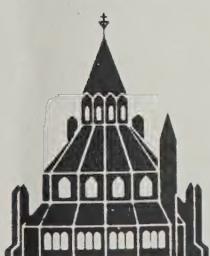


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## TELECOMMUNICATIONS SERVICES AND PRICING: FROM MONOPOLY TO COMPETITION

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*Revised 30 September 1996*



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Available in Canada through  
your local bookseller  
or by mail from  
Canada Communication Group -- Publishing  
Ottawa, Canada K1A 0S9

Catalogue No. YM32-1/95-1-1996-09E  
ISBN 0-660-16788-3

N.B. Any substantive changes in this publication which have been made since the preceding issue are indicated in **bold print**.

CE DOCUMENT EST AUSSI  
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FROM MONOPOLY TO COMPETITION\*

ISSUE DEFINITION

Telephone and cable television ("cableTV") industries in Canada have since their inception been run as regulated provincial or local monopolies. While the organizational structures of both industries to some extent evolved naturally, they were also fashioned by federal regulatory policies carried out by the Canadian Radio-television and Telecommunications Commission ("CRTC") and other public means. Public involvement was premised on avoiding the duplication of network infrastructure while restraining the monopoly profits of the utilities, since the market structure of both industries was viewed as a "natural monopoly."

Innovations in fibre-optic cable, digital switching and compression, computer software applications, and satellite and wireless transmissions are, however, leading these once separate industries to merge with the computer industry to share a much larger common market. These technological developments make it possible for a number of competitors to enter the industry profitably without reducing economic efficiency and to reach an audience that is now expanding beyond domestic borders. Thus, with no market, foreign or Canadian, dependent on a single domestic supplier, competition can reign much as it does in other unregulated sectors of the economy.

The so-called information or electronic highway ("superhighway") will eventually include fully interactive, mobile, two-way voice, video and graphic forms. CRTC rules will continue to govern industry participants but this superhighway — the quintessential infrastructure of the "Information Age" — is likely to be marked more by competition than by regulation. This CIR will examine the implications of the new competitive environment in the telecommunications and broadcast distribution sectors.

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\* The original version of this Current Issue Review was published in September 1995; the paper has been regularly updated since that time.

## BACKGROUND AND ANALYSIS

### A. Sectoral Histories and Recent Developments

The Bell Telephone Company of Canada (Bell) and its manufacturing arm Northern Telecom (Nortel) were Canada's first telephone companies. Several private and provincially sponsored companies followed, each having monopoly rights over its territory, which was usually defined by provincial boundaries. Interprovincial networks are managed under a loose alliance known as Stentor Canadian Network Management (Stentor), which also includes Telesat Canada — Canada's monopoly provider of satellite telecommunications. Since the 1980s, the market has embraced several "resellers" that provide basic and enhanced long distance telephone services. Resellers buy or lease blocks of transmission capacity at wholesale from the facilities owners (Stentor companies) for resale to their subscribers. The market since 1992 has also incorporated two additional facilities-based, long distance telephone companies: AT&T Canada Corporation (formerly Unitel Communications Inc. and CNCP Telecommunications) and Sprint Canada (Sprint). Also recently introduced are mobile, person-to-person communications by way of cellular and digital wireless technologies.

The distribution of television programming by coaxial cable did not begin until mid-century but now dominates all other modes of retailing broadcasting program services (most notably over-the-air transmissions) because of its superior TV picture quality and the greater diversity of services it offers. A satellite service has also been available in Canada's remote and underserved areas for some time through Canadian Satellite Communications Inc. (Cancom), but a direct-to-home (DTH) service and a pay-per-view (PPV) service by means of direct broadcast satellites (DBS) for all of Canada is imminent. Companies vying to introduce it include: Expressvu Inc. (BCE Inc., Tee-Comm Electronics Inc., WIC Western International Communications Inc. and Cancom), Power DirecTv Inc. (Power Corporation and DirecTv. Inc.), HomeStar Inc. (Shaw Communications Inc., Cogeco Cable Inc., Fundy Cable Inc., Astral Communications Inc. and Allarcom Pay Television Limited), Star Choice Television Network, and AlphaStar Inc. (Tee-Comm Electronics Inc. and AlphaStar Digital Television Inc.).

Telesat Canada would provide the satellites required for such transmissions if Tele-Communications Inc. and TelQuest Ventures LLC were to receive licences from the Federal Communications Commission to provide broadcasting services by satellite in the United States; Telesat Canada must provide American services along with Canadian services for the satellites to be economically viable.

#### B. Emerging Technological, Service and Structural Changes

The Information Age is not just about an amazing array of new communications gadgets that are permitting more and varied discourse about the globe. It is about how revolutionary innovations are leading people to re-organize their lives at work and at home and even to blur the differences between work, school and leisure. Not only do technological advances favour the dissolution of boundaries between broadcasting and telecommunications activities, they are also in some sense turning back the clock to pre-industrial days since some business activities can be organized as cottage factories. Today, far more strategic forethought is being put into the design of the wares offered for sale, which can usually be grouped under the heading "services." This should not be surprising, given that the telecommunications and microprocessing innovations have freed-up the professional class to be more imaginative and productive.

Information-based services are now more important than ever to the competitiveness of Canada's business sector. From a sheer quantitative perspective, in 1994 the revenues of telecommunications and cableTV companies amounted to \$17.9 billion, representing 2.4% of Canada's GDP. Including the information-based activities of broadcasting and computer services companies, revenues in 1994 totalled \$36.8 billion, representing 4.9% of Canada's GDP. The Information Highway Advisory Council ("IHAC") further expanded the periphery of information-based industries to include telecommunications equipment, computers and office equipment, instrumentation, microelectronics and consumer electronics products. From this perspective, total information-based services revenue in 1994 was \$50 billion, accounting for 7% of

**Canada's GDP.** Telecommunications, broadcasting and computer services industries productively engaged 277,750 people, representing 2.1% of the country's total employment in 1994. These employees are disproportionately at the high end of the skill class in the economy, with an average salary of \$44,392 in 1994, well above the national average.

From a qualitative perspective, the contribution of Canada's information-based industries is equally impressive. Business activities are now more than ever geographically dispersed, thereby requiring more intra- and inter-corporate communications for better coordination and efficiency. The sophisticated telecommunications networks are essential for the efficient and timely movement of information in the modern business world; they enable people to take advantage of developing information technologies such as "just-in-time" inventory control, electronic data interchange, airline computer reservations and electronic banking, video-conferencing and video-on-demand ("VOD") systems and much more. All of these contribute to greater corporate and business efficiency through reduced inventory costs, business decentralization, shorter product development cycles, improved customer service, greater responsiveness to customer needs, faster response times, increased product support, reduced overhead costs, reduced marketing and distribution costs, increased scope of management and improved decision-making.

Though individually each innovation has led to trivial improvements in our way of life, collectively, and in view of the speed with which they have gone from discovery to commercial application to wide popular diffusion, they constitute a revolution. Needless to say, our future standard of living will in great part depend on our ability to create, disseminate and process information so as to take advantage of emerging opportunities. A critical element in this process will be our communications infrastructure, particularly DBS technology and the superhighway.

The impact of DBS technology on Canada's broadcasters and cableTV operators will be substantial. At the very least, DTH satellite services make radio and television programming less scarce and could therefore force a restructuring of the Canadian broadcasting

system. Canadian audience fragmentation or the disappearance of captive audiences, a trend for more than two decades, is largely the result of these technological breakthroughs in telecommunications; examples are the licensing of cableTV and specialty television channels, pay television and PPV, and the explosion of VCRs, videodiscs, personal computers, video games and video stores across the country. The potential 500-channel universe to be offered by DTH/DBS services by the end of the decade is just one more step in this direction.

For example, the growing specialty television ("narrowcasting") caters to specific viewer interests in sports, music, science, entertainment and lifestyles. Because these services at least partly complement their existing services, the parent holding companies of some broadcasters have begun to offer them. Narrowcasting raises both television viewership and industry advertising revenues, but erodes the identification and branding of traditional broadcasters. In a world comprising targeted audiences, advertisers can promote specific products and services without resorting to a national advertising campaign; thus, more advertising dollars flow into the industry, while viewers get more programming choice.

As consumers increasingly pay for these services through subscriber fees, they have become more demanding of them and more critical of regulatory barriers. Canadians wanting complete control over their own viewing will eventually get exactly what they are willing to pay for: VOD, whereby products and services, completely funded by some combination of subscriber and user fees, will be distributed much like books, magazines, and videodiscs by the retail sector, albeit electronically. Their leisure time will not be controlled by the program schedules of either the narrowcasters or the broadcasters and these consumers will have no interest in the 500-channel universe; they will be able to choose their entertainment from several video libraries containing a universe of products and services. Most Canadians, however, will buy into the multi-channel universe, remaining somewhat dependent on the programming schedules of different narrowcasters and broadcasters (presumably they use a VCR) as advertising dollars defray a portion of program costs. In the end, the viewer services offered will be almost as diverse as the tastes of the population they serve.

DBS technology does not have the potential to do what some cultural advocates fear: bring about the end of the Canadian broadcast industry and Canadian culture in a so-called "death star" scenario. The cultural identity and integrity of any country is not static, nor is its

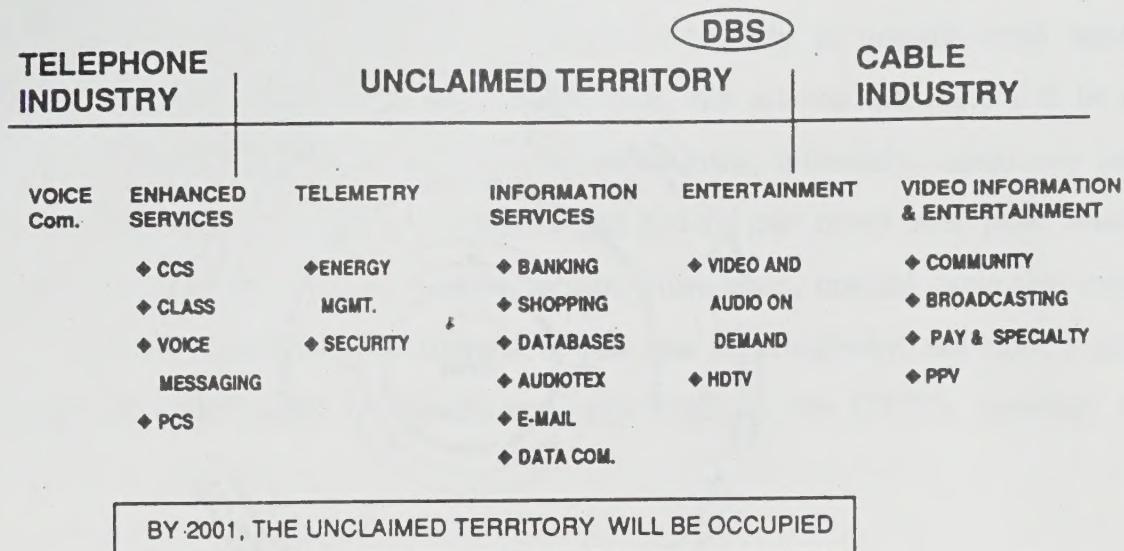
expression through the "entertaining arts" so fragile. Just as marketing and business plans must be focused more sharply in this new narrowcasting and broadcasting environment, so must government policies. DBS is more likely to force improvements and refinements in Canadian broadcasts and in their cultural content and lead to greater prospects for exporting Canadian broadcast programs and culture. The success of Canadian programs and culture ultimately rests on the talent and creativity of Canadians, not on the regulations set by the CRTC or on government funds, although these may play a limited role in nurturing the necessary talent and skills.

The other revolutionary force, the superhighway, is an advanced information and communications infrastructure built on networks now existing or developing; it includes satellites, such as DBS and low-earth orbiting ("LEO") satellites, that will number in the hundreds, possibly thousands, to provide worldwide wireless telecommunications services. In voice, text, data, graphics and video forms, it will provide access to a vast array of knowledge-based services, including education, entertainment, banking, electronic and business, linking Canadian homes, businesses, governments, schools, libraries and other institutions. This full "network of networks" vision, in which a user on any network will be able to reach a subscriber or customer located on any other, will require a great deal of network interconnectivity and interoperability.

It is evident that there will be considerable convergence of technologies, fusion of products and dissolution of traditional industry boundaries. Increasingly similar cableTV and telephone networks resulting from their conversion to digital transmission of signals by the asynchronous transfer mode, compressed for greater capacity over optical fibre or the radio spectrum, and enhanced by computer and software innovations are permitting separate industries to compete for consumers, whose needs will create a larger common market. Telephone companies will soon be able to offer broadcast television and interactive broadband services, while cableTV companies can move into two-way, interactive video, voice, data and graphics communications. These are not all the changes to be expected from the introduction of these technologies; more interesting sectoral developments might involve the computer industries, especially those dealing with software.

Figure 1

**COMPETITIVE TRENDS**



Source: Canadian Cable Television Association, "A Clear Vision," p. 17.

Figure 1 presents one possible vision this larger common market. CableTV and telephone companies predict that the combined initial investment necessary to achieve this digital future for Canada will be \$30 billion.

Figure 2 presents the "status quo" market structure of the superhighway, while Figure 3 depicts an "idealistic" competitive and seamless marketplace model with three tiers. The first, innermost tier comprises end-use consumers who are equipped with multi-purpose terminal equipment (yet to be developed). They obtain multimedia services of all types from the service providers that make up the middle tier. These service providers are retailers; they obtain content, such as video entertainment and high-capacity data services, from the input suppliers and telecommunications services from the teleco-cableco-satellite companies whose infrastructure is made up of inter-connected elements of copper, fibre and radio-based technologies. The content suppliers and telecommunications companies ("intermediary goods producers") make up the outer tier.

Figure 2

The Unified Three-Tiered I-Way

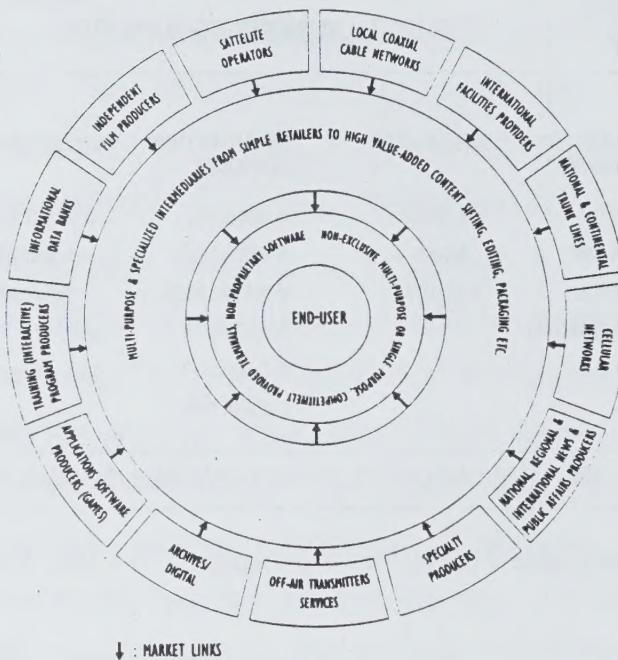
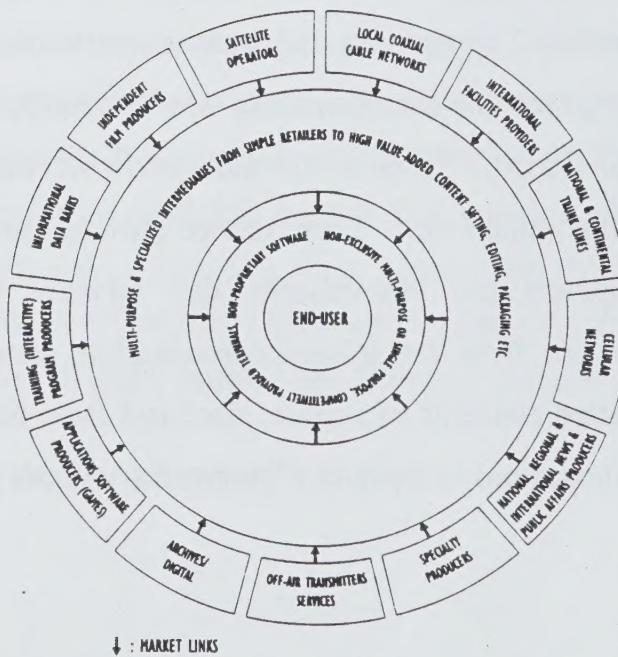


Figure 3

The Unified Three-Tiered I-Way



Source: C. Sirois and C.E. Forget, *The Medium and the Muse: Culture, Telecommunications and the Information Highway*, Institute on Research for Public Policy, Canada, 1995.

The only obvious drawback of this futuristic model is that it overstates the power of the market, which is likely to be partly superseded by a hierachial corporate form when the telecommunications infrastructure companies integrate vertically to provide retail services and horizontally to provide content. Furthermore, one must not assume that there will be only one superhighway. Telecommunications is a delivery mechanism; ultimately, consumers care about content, not its method of transmission. Just as gas and oil can travel over pipe, road or rail, information can travel over alternative radio spectra, fibre-optic, coaxial cable and copper-wire networks. The chosen route need not consist of just one superhighway, nor does it need to be publicly owned and maintained. A "traffic cop" (for example, the CRTC), however, might be advisable.

### C. The Policy Target: A Competitive Marketplace

The form of economic regulation employed by the CRTC and the public way in which its hearings are conducted reflect the traditional objectives of the *Railway Act*: "consumer protection," motivated by the industry's natural monopoly characteristics, and "income redistribution." A careful study of the *Telecommunications Act* of 1993, successor to the *Railway Act*, reveals that it too incorporates these motives, but has been updated to consider institutional features such as the large sunk-cost investments that can act as a barrier to entry into or exit from the industry, provide the basis on which to build an incumbency predatory policy, and lead to the development of a less than truly competitive market structure. When these costs are substantial, however, government regulation can improve the efficiency of the industry; for this reason, price caps were incorporated into the Act as an alternative to rate-base, rate-of-return pricing. When sunk costs are not substantial, however, the regulatory authority should refrain from regulation — an option also incorporated into the Act.

It should be noted that regulation is not a perfect substitute for competition. While rate-base, rate-of-return regulation is aimed at keeping tariffs closer to the cost of providing them, it is not a very good mechanism for controlling other important economic factors. Competition, on the other hand, not only constrains price to cost, it also restrains cost increases and leads to

adoption of efficient production processes, least-cost input factors, organizational integration (horizontal and vertical), and research, development and implementation of optimum technological innovations.

Regulation often fails to perform these tasks adequately. For example, meeting all of the salary demands of workers and unions can usurp the benefits of regulation, since a company without rivals can simply pass on extra labour costs to consumers without fear of any significant loss in demand. Bell has classified an inordinate number of employees in management positions, which are outside the collective bargaining process, in order to constrain, but not eliminate, this distortion. Again, the telephone company could integrate upstream with a company supplying inputs for which it charged the telephone company excessive prices, thus artificially overloading it with misallocated costs, and taking above-normal rates of return in the upstream market. An example might be an exclusive dealing policy between Nortel and Bell. Similarly, the telephone company could assign and misallocate joint and non-specific overhead costs to selective telephone services, (e.g., local services could cross-subsidize long distance services) thereby thwarting the regulator's efforts to constrain the company's return on investment in monopoly services. Since profits are maximized by increasing capital inputs, rate-of-return regulation also encourages a company: (1) to over-invest in capital equipment and in capital-intensive/labour-saving innovations, and (2) to seek non-optimal sources of financing such assets. One, therefore, should expect the Stentor companies to have very expensive networks — "state-of-the-art" portions of it are likely to be uneconomic — and to rely excessively on debt rather than equity so as to prevent the dilution of its shareholders' interests.

Indeed, the regulator's task is onerous and its results pale in comparison with those of competition, particularly in a rapidly changing environment. The substantive changes in the economic circumstances of telecommunications in the past two decades suggest that government should consider alternative policy instruments. Private ownership has largely replaced public ownership within the sector and competition policy begins to look more appealing than regulation, in view of the latter's significantly greater costs.

At the beginning of the twentieth century, however, regulation was the most effective method of income redistribution, given the then small size of the government. The high

costs of passenger transportation in those days, as an alternative to telecommunications, also favoured establishing a cross-subsidy between the different telephone services, regardless of the resulting distortion of the industry's efficiency. Today, when telephone usage patterns do not appear to be tied to income or other demographic factors relevant to a subsidy policy, a telephone voucher or a refundable tax credit to low-income consumers might be of more help to the "poor" than low local rates. Such rates have not only distorted incentives within the industry, but have also spawned a host of wasteful irritants such as direct or tele-marketing.

The *Broadcasting Act* of 1991, on the other hand, was not conceived to protect consumers from monopoly, but rather to protect and preserve Canadian cultural products and bolster national and cultural sovereignty through the creation of radio and television monopolies and oligopolies. The CRTC accomplishes these objectives by awarding fewer radio airwaves than would be the case under unfettered competition. Through mandating minimum Canadian content as a condition of licence, an artificial programming scarcity is created. This artificial scarcity obliges broadcasters to recoup losses incurred on the provision of Canadian programming by earning oligopolistic profits on the provision of foreign programming. So broadcaster rewards of oligopolistic profits flowing from the licences are quickly dissipated to meet these obligations. In effect then, the broadcasting company receives distorted market incentives from the CRTC, redirecting it away from offering the most efficient services (which would likely involve more foreign programming) and towards offering more Canadian programming. The cableTV and satellite distribution industries were subsequently pulled into the regulatory ambit as they became the primary means of retailing television programming, thereby altering the influence of these federal broadcasting policies.

The CRTC, then, is expected to frustrate the telecommunications companies' tendencies towards monopoly, yet at the same time to implement the legislation for preserving Canadian broadcasting oligopolies. When technological innovations are fostering competition between the products and services of both sectors, and the CRTC must employ diametrically opposing strategies to achieve the different (often conflicting) policy goals, the agency's ability to manage both sectors is increasingly suspect.

Together these sectoral developments suggest: (1) a shift in the mandate of the CRTC away from price and entry regulation and towards regulation of privacy and access to essential "bottleneck" facilities; (2) more activity by the Bureau of Competition in the telecommunications sector; and (3) greater reliance upon direct transparent subsidies (in cash or in tax breaks) to cultural industries (financed by means of general taxation) rather than upon CRTC regulation.

#### D. The CRTC's Path to a Competitive Marketplace

The scope for competition to determine the structure and performance of the telecommunications sector has increased steadily since 1979, albeit slowly, largely as a result of CRTC decisions in response to technological innovations within the sector and competition from the U.S. Pro-competitive initiatives include system interconnection, terminal attachment, the licensing of cellular radio telephone services, resale and sharing provisions, regulatory forbearance and rate-rebalancing of telephone services.

While entry into long distance telephone markets is open — in fact, the new entrants have since captured between a 25-30% share of the long distance market — the rates charged by the Stentor companies remain regulated (CRTC Telecom Decision 92-12); thus, consumers have choice in telephone companies but are restricted in their choice of service types. The CRTC permits the telephone companies to offer selective discounts as long as these do not lead to higher local rates. The CRTC, after being much criticized for its inaction, has also established a price floor based on its formula for separating costs (Telecom Decision 94-13) between local and long distance services.

The telephone companies and their competitors must also continue to route-average basic long distance services, so that phone calls of equal distance between any two points in a territory, whether rural or urban, are charged the same, despite very different costs. By far the greatest regulatory barrier to full competition in the telecommunications sector, however, remains the pricing policy for local and long distance calls. The fixed common costs of providing local and long distance services were until 1995 primarily recovered on a 30:70 ratio, despite the fact that

under a "Ramsey formula," efficient pricing of the two services would dictate almost the reverse ratio. Consequently, AT&T Canada, Sprint and the many resellers must pay an additional charge of about 6.7¢ per minute to the Stentor companies as compensation for the loss of the long distance revenues needed to cross-subsidize local telephone services.

In a decision of September 1994, however, the CRTC took a significant step towards permitting more competition in telecommunications markets, paving the way for new services while addressing its critics through re-balancing long distance and local telephone rates. The CRTC decision would have permitted the Stentor companies to increase the monthly charge for local services by \$2 in each of three consecutive years, commencing in 1995, provided that there was a revenue-neutral reduction in long distance rates. In Ontario, local monthly service rates would eventually rise to about \$18, which, it was estimated, would pay for about \$300 million in reductions in long distance calls. Rate-rebalancing was to be followed by the implementation of price caps for "utility" services (which, as defined by the CRTC, encompass more than just monopoly services) by 1998.

In the transition to price caps regulation, the rate base of the Stentor companies was to be split into two segments: utility and competitive. The utility segment would continue to be subject to earnings regulation, while competitive services would not be subject to any regulation other than that for anti-competitive behaviour. The split rate base would be computed under the CRTC's service category costing methodology.

Subsequent to this decision, consumer advocacy groups, AT&T Canada and Sprint appealed to the Cabinet, which later asked the CRTC to review its decision. This request, in effect, delayed the price increases and slowed the progress of deregulation. The CRTC, approximately one year later, confirmed its earlier decision with minor changes, whereupon the Stentor companies appealed to the Cabinet. The Government of Canada absolved the Stentor companies from having to make a revenue-neutral reduction of long distance telephone rates, thereby suggesting that the long distance telephone market is competitive enough to keep Stentor rates competitive with their rivals.

The CRTC's plans would also permit cableTV undertakings and new wireless service providers to compete in the local telephone market on the same terms as other supplier companies. The CRTC would endorse local network unbundling and co-location as the primary means for restraining the market power of the vertically integrated telephone companies. At the same time, the telephone companies would be permitted to deliver broadcast programming to the home on behalf of licensed broadcasters (video-dial tone) and to engage in technology trials of broadcast VOD services commencing in 1998.

The CRTC claims that these new regulations, and others to follow, would be set for an era of rapid technological change, expanding competition and the increasing importance of telecommunications to Canada as a tool for economic growth. The CRTC decision endorsed the principles that: (1) the appropriate measure of affordability of telephone services incorporates long distance, as well as local services and (2) the Stentor companies should remain vertically integrated, rather than being split into local and long distance networks through divestiture.

While most would in general agree with the proposals in CRTC Decision 94-19, some comments are in order. For example, in the case of the first CRTC endorsement, a refundable tax credit or voucher to the low-income subscribers could have been considered. Its absence suggests that the CRTC and Industry Canada do not believe that rate-rebalancing would adversely affect the welfare of these subscribers or universal service; however, if this is so, why was there a cross-subsidy scheme in the first place?

In its second endorsement, the CRTC has concluded that vertical integration of network access and retailing local and long distance services benefits the industry and consumers. But do such benefits, largely attributable to economies of scope between local and long distance telephone services, exceed the economic losses that arise from the CRTC attempt to determine the economic costs of providing network access and local calls separately from long distance calls? After all, the telephone companies could misrepresent the attribution of common and overhead costs to the various services and then, under the auspices of regulation, prey upon their long distance rivals. It is not surprising that AT&T Canada and Sprint have appealed this CRTC decision to the federal Cabinet. Among other things, they claim that the CRTC's costing methodology, whereby the billing and collection costs of the Stentor companies are attributed

entirely to the provision of local services, represents a cross-subsidy and thus gives an unfair advantage to Stentor companies in long distance markets.

Finally, the timing of rate-rebalancing may have been inappropriate. It could be argued that this should have begun in 1992, when AT&T Canada and Sprint were first permitted to compete in long distance markets. Their marketing strategies might have been different and their entry more smooth, possibly avoiding a portion of their collective losses that even today have exceeded \$1 billion.

## PARLIAMENTARY ACTION

On 26 April 1995, in accordance with section 8(2) of the *Broadcasting Act*, S.C. 1991, the Government of Canada tabled in both Houses of Parliament a copy of two proposed orders to the CRTC. The Governor in Council was proposing to issue directions to the CRTC on the licensing of DTH satellite distribution and PPV television undertakings. These orders were referred to expert committees of both legislatures for consideration for 40 parliamentary sitting days before any final orders could be issued.

The orders were in response to a CRTC decision in August 1994 to issue an Exemption Order (Public Notice CRTC 1994-111) with respect to DTH satellite distribution undertakings, provided that certain criteria dealing with Canadian ownership, Canadian content and the exclusive use of Canadian satellites for all programming — domestic and foreign — were met. Only one of a few potential services qualified under this exemption; thus Expressvu Inc. had a head start in the business. The Government of Canada was then determined to introduce competition into DTH and DTH/PPV services. Its directions to the CRTC reflected: (1) the revocation of existing DTH exemptions and (2) the urgent need for an expedited licensing process for these undertakings, by such services would not be required to use exclusively Canadian satellites, as is currently the norm in the cableTV industry.

The Committees of both Houses studied the issues in great detail and recommended changes to the proposed orders. These included: (1) that the CRTC waive the mandatory administrative time constraints and notice periods to complete a licensing process by 1 September

1995 and thereby avoid the revocation of the existing exemption; (2) that the Governor in Council modify the language of the directions that is specific and not in accordance with numerous precedents dealing with matters of general application; (3) that the licensing of DTH and DTH/PPV undertakings not be conditional on the viability of existing licensees; and (4) a simplification of the wording with respect to permitting the use of foreign satellites when importing and exporting programs.

The final Governor in Council orders giving direction to the CRTC were issued 7 July 1995 and generally reflected these and other recommendations advanced by both parliamentary committees. They established a 1 November 1995 deadline for completion of the licensing process and that the existing CRTC Exemption Order remain in effect until such a process is complete. The CRTC has since completed its licensing process in accordance with these directions, but has granted a licence to only two services: Expressvu Inc. and Power DirecTv Inc. The other three services are re-applying, each claiming that it is able to meet the regulatory obligations that would be imposed.

Finally, the Minister of Canadian Heritage announced his intention to introduce legislation raising the foreign capital restriction on broadcasting undertakings from 20% to 33 1/3%, a limit equivalent to restrictions imposed on telecommunications undertakings. This policy, along with the introduction of Bill C-57, which would revoke the prohibition on Bell Canada's holding a broadcast licence, would also be consistent with expectations that the introduction of new technologies will dissolve industry boundaries between broadcasting and telecommunications.

## CHRONOLOGY

- 1979 - Telecom Decision CRTC 1979-11: Interexchange voice/data private line service interconnection (*CNCP Telecommunications v. Bell Canada*).
- 1980 - Telecom Decision CRTC 1980-13: Customer-owned terminal attachment, including extensions, PBXs, data terminals (*Bell Canada - Interim Requirements Regarding the Attachment of Subscriber-provided Terminal Equipment*).
- 1981 - Telecom Decision CRTC 1981-19: Extension of Telecom Decision CRTC 1980-13 to B.C. Tel subscribers.

- 1984 - Telecom Decision CRTC 1984-10: Cellular and conventional public and private mobile systems interconnection with public switched telephone network.
- 1984 - Telecom Decision CRTC 1984-18: Resale of enhanced long-distance telephone services underlying the public switched telephone network granted.
- 1985 - Telecom Decision CRTC 1985-19: Denied CNCP Telecommunications' application to compete with Bell Canada and B.C. Tel in the provision of long-distance telephone services (MTS, WATS).
- 1989 - Supreme Court confirmed federal jurisdiction in telecommunications but exempted provincial Crown corporations.
- 1990 - CRTC allowed private line sharing and resale for public local and long-distance telephone services.
- 1990 - Alberta Government Telephones privatized.
- 1991 - A new *Broadcasting Act* adopted with the proclamation of Bill C-40.
- 1991 - The Governments of Canada and Manitoba signed a Memorandum of Understanding transferring regulatory authority of the Manitoba Telephone System to the CRTC.
- 1992 - Telecom Decision CRTC 1992-12: Unitel Communications Inc. permitted to enter the long-distance telephone market.
- 1993 - The *Telecommunications Act* amended by Bill C-62.
- 1994 - City of Edmonton decided to privatize Edmonton Telephones.
- 1994 - Telecom Decision CRTC 1994-19: Rate-rebalancing of local and long-distance telephone services.
- 1994 - CRTC exempted Bell Canada and Cancom from obtaining a broadcasting licence to provide a trial of video-on-demand services.
- 1995 - **Telecom Decision CRTC 1995-12:** confirmed Telecom Decision CRTC 1994-19 with a few minor changes.
- 1995 - The Federal Cabinet absolved the Stentor companies from having to provide a revenue-neutral reduction in long distance telephone rates.

1996 - Bill C-57 was introduced in the House of Commons. It would revoke section 7 of the *Bell Canada Limited Act* which prohibits Bell Canada Limited and its subsidiaries from holding a broadcast licence.

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